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# Latest results from the Double Chooz Collaboration

The Double Chooz experiment has obtained its most precise measurement of the neutrino mixing angle $\theta_{13}$, exploiting for the first time its FD and ND configuration. The improvement of this value falls on the increase of statistics as well as the major reduction of reactor and detection systematics thanks to the iso-flux configuration and a novel detection technique, called Total neutron Capture. This new neutrino detection method integrates simultaneously over Gadolinium and Hydrogen neutron captures coming from the neutrino interaction in the full scintillation detector volume. This poster will cover the main analyses carried out to perform the latest $\theta_{13}$ measurement, which has been published in Nature Physics 2020.

## Mini-abstract

First Double Chooz $\theta_{13}$ measurement via Total neutron Capture detection technique

## Experiment/Collaboration

Double Chooz Collaboration

**Primary author:** Dr NAVAS NICOLÁS, Diana (IJCLab, Orsay)

**Presenter:** Dr NAVAS NICOLÁS, Diana (IJCLab, Orsay)

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